



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,502	07/11/2003	Deshanand P. Singh	ALT.P022	3986

27296 7590 04/19/2006

LAWRENCE M. CHO
P.O. BOX 2144
CHAMPAIGN, IL 61825

EXAMINER

GARBOWSKI, LEIGH M

ART UNIT PAPER NUMBER

2825

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No.	Applicant(s)	
	10/617,502	SINGH ET AL.	
	Examiner	Art Unit	
	Leigh Marie Garbowski	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Inventorship

In view of the papers filed 02/02/2006, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by the deletion of Ian Chesal, Paul McHardy, and Ivan Hamer as inventors in the application.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

Claims 1-29 are rejected under 35 U.S.C. 102(a) and under 35 U.S. C. 102(f) as being clearly anticipated by Singh et al. ["Incremental Placement for Layout-Driven Optimizations on FPGAs"]. Please see the entire document, particularly section 3.

Claims 1, 18, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams [U.S. Patent #6,631,508 B1].

As per claims 1/26, a method/machine-readable medium for designing a system on a target device utilizing FPGAs, comprising: placing new LEs at preferred locations on a layout of an existing system [column 7, lines 5-14; column 8, lines 22-26; column 9, lines 9-16; column 9, line 63-column 10, line 53]; and resolving illegalities in placement of the new LEs [column 5, lines 40-45; column 6, lines 1-14; column 10, lines 22-27; column 12, lines 22-29; column 13, lines 11-16; column 14, line 45-column 15, line 10]. As per claim 18, a method for designing a system on FPGAs, comprising: determining

placement of LEs for an existing system [column 7, lines 5-14; column 9, lines 9-10; column 9, line 63-column 10, line 53]; modifying a design for the existing system to improve performance [column 2, lines 28-30; column 6, lines 1-8; column 10, line 54-column 11, line 6]; placing new LEs from a modified design on the placement of LEs for the existing system [column 6, lines 1-8; column 8, lines 22-26; column 9, lines 9-16; column 9, line 63-column 10, line 53]; and resolving illegalities in placement of the new LEs [column 5, lines 40-45; column 6, lines 1-8; column 10, lines 22-27; column 12, lines 22-29; column 13, lines 11-16; column 14, line 45-column 15, line 10].

Response to Amendment

The declarations under 37 CFR 1.132 filed 02/02/2006 are insufficient to overcome the rejection of claims 1-29 based upon Singh et al. ["Incremental Placement for Layout-Driven Optimizations on FPGAs] as set forth in the last Office action because: while the declarations assert that Brown and Singh are co-inventors, the declarations do not provide any explanation regarding the presence of the other named inventors. A satisfactory showing is not provided which would lead to a reasonable conclusion that Brown and Singh are the sole inventors.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh Marie Garbowski whose telephone number is 571-272-1893 and e-mail is Leigh.Garbowski@uspto.gov. The examiner can normally be reached on days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2825

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LEIGH M. GARBOWSKI
PRIMARY EXAMINER